

## CLAIMS

What is claimed is:

1. An immunization formulation, comprising:
  - a) an antigen; and
  - 5 b) an emulsan adjuvant.
2. The immunization formulation of Claim 1, wherein the emulsan adjuvant is secreted from *Acinetobacter calcoaceticus*.
3. The immunization formulation of Claim 2, wherein the emulsan adjuvant is secreted from *Acinetobacter calcoaceticus* RAG-1.
- 10 4. The immunization formulation of Claim 1, wherein the emulsan adjuvant is secreted by a mutant of *Acinetobacter calcoaceticus*.
5. The immunization formulation of Claim 4, wherein the emulsan adjuvant is secreted by a transposon mutant of *Acinetobacter calcoaceticus*.
6. The immunization formulation of Claim 1, wherein the emulsan adjuvant has an  
15 average fatty acid chain length in a range of between about 10 carbons and about 20 carbons.
7. The immunization formulation of Claim 1, wherein the emulsan adjuvant has a fatty acid density in a range of between about 25 nmol/mg emulsan and about 900 nmol/mg emulsan.

8. The immunization formulation of Claim 1, wherein the emulsan adjuvant has an amount of saturated bonds in fatty acids of the analog in a range of between about 80 mole % and about 100 mole %.
9. The immunization formulation of Claim 1, wherein the emulsan adjuvant has an amount of hydroxylated fatty acids in a range of up to 65 mole %.
10. The immunization formulation of Claim 1, wherein the emulsan adjuvant is formed by feeding *Acinetobacter calcoaceticus* or a mutant thereof a compound selected from the group consisting of fatty acids, fatty acid salts, hydroxylated fatty acid salts and complex carbon sources that include fatty acids, said group having a carbon chain length in a range of between about 10 carbons and about 20 carbons.
11. The immunization formulation of Claim 1, wherein the antigen is selected from the group consisting of peptides, polypeptides, viruses, bacteria, fungi, and parasites.
12. The immunization formulation of Claim 11, wherein the antigen is dinitrophenol coupled to keyhole limpet hemocyanin.
13. A formulation comprising an antigen and an emulsan adjuvant for stimulating an immune response in an organism.